



# BalancedHome™ Energy Recovery Ventilators (ERVs)



*BalancedHome Elite Plus+  
FV-16VEC1T – Top Port*

## **BalancedHome Elite Plus+ Models**

FV-16VEC1T – Top Port (30-160 CFM)  
FV-16VEC1S – Side Port (30-160 CFM)  
FV-13VEC1T – Top Port (30-130 CFM)  
FV-13VEC1S – Side Port (30-130 CFM)

## **BalancedHome Elite Models**

FV-15VE1T – Top Port (30-150 CFM)  
FV-15VE1S – Side Port (30-150 CFM)  
FV-12VE1T – Top Port (30-120 CFM)  
FV-12VE1S – Side Port (30-120 CFM)

## The Balanced Ventilation Solution for Any Home

Bring advanced indoor air quality to your projects with the industry's most versatile energy recovery ventilator. The BalancedHome series offers unmatched flexibility with 8 models and 4 max adjustable CFM ranges, allowing you to choose the perfect solution for any home.

Our unique design accommodates both top and side port installations, making it easier to integrate into your plans while meeting stringent code requirements.

Built for high-performance balanced ventilation, the BalancedHome ERV delivers superior installed performance and energy efficiency, all at a cost-effective price point. Ideal for the single-family market, this innovative system is key to healthier, more comfortable living spaces and the backbone to an effective ventilation strategy.



\*This product meets strict energy efficiency guidelines set by Natural Resources Canada and is ENERGY STAR® certified for the Canadian market only. There are no current Energy Star ratings for Energy Recovery Ventilators in the US market.



## BalancedHome Features

- **Fan Speed:** Select models at desired CFM levels ranging between 30-160 CFM
- **Sensible Recovery Efficiency:** 82% Sensible Recovery Efficiency with our Elite Plus+ 160 CFM units – FV-16VEC1T / FV-16VEC1S
- **Control Panel:** Integrated LED wall control panel with the ability to set and monitor air flow operation
- **Wi-Fi Module (WP100PBA):** Optional Wi-Fi Module (sold separately) can connect and control the ERV independently or with multiple ventilation devices (WhisperGreen Select and/or WhisperFresh Select) from the Swidget mobile app to maintain healthy indoor air quality
- **Filters:** MERV 13 filter (FV-FL1316VE1) standard for Elite Plus+ models. Merv 8 filter (FV-FL0815VE1) standard for Elite models. Washable MERV 6 filters (FV-FL0616VE1) also available. All filters can be used in all models.
- **Frost Prevention:** Frost Prevention mode automatically activates to prevent core from freezing
- **Moisture Control:** Panasonic's hygroscopic core balances humidity between the indoor and outdoor airflows
- **Mounting Options:** All models can be wall mounted with included brackets or suspended by chains (sold separately)
- **Fault Indicator Display:** Fault Indicator Display (FID) on the ERV and wall control notifies user when filter maintenance is needed, provides readings on low supply or exhaust airflow, and any other system issues
- **Compliance:** Built-in ASHRAE 62.2 timing function for code compliance. Can be used to comply with ASHRAE 62.2, Ontario Building Code, ENERGY STAR®, LEED, Indoor airPLUS, California Title-24, and 2021 Washington State Residential Energy Code.

## Competitive Corner

- Top rated Sensible Recovery Efficiency of 82% at 32° F for Elite Plus+ FV-16VEC1T and FV-16VEC1S (160 CFM) models
- All models are equipped with a standard power cord and include a hardwire adapter in the box
- Built in Smartflow technology provides balanced ventilation regardless of a complicated duct run, saving the contractor time on installation
- Panasonic's hygroscopic core balances humidity between the indoor and outdoor airflows
- Warranty: Six (6) years on ECM motor, three (3) years on all other parts
- Panasonic's embedded frost prevention strategies automatically activate to prevent the core from freezing. Choose one of two strategies depending on your climate zone, ventilation strategy, and model.
  - *Recirculation mode* (Elite Plus+ models)
  - *Exhaust only* (Elite & Elite Plus+ models)
- Optional Wi-Fi Module (sold separately) can connect and control the ERV independently or with multiple ventilation devices (WhisperGreen Select and/or WhisperFresh Select) from the Swidget mobile app to maintain healthy indoor air quality
- Fault Indicator Display (FID) on the ERV and wall control provides real time updates on filter, system issues, and power usage



*BalancedHome Elite Plus+  
FV-16VEC1T – Top Port with  
internal core removed*

## Optional Touch Screen LED Wall Control (FV-SC16VEC1)

The all new touchscreen LED wall control (sold separately) allows for total control of the unit. The wall control provides the user access to multiple ventilation control settings along with updates for real-time air flow, fault indicator display and temperature monitoring.



## Functions and Settings

- Power On/Off
- Activate Boost mode and timing function
- Activate and adjust ASHRAE timing functions
- Supply and Exhaust CFM settings
- Displays Indoor / Outdoor temperature and humidity (Elite Plus+ models)
- Filter reset and maintenance notifications



ERV Core

## BalancedHome Core

Indoor and outdoor air pass through hygroscopic membranes of Panasonic's core, specifically engineered for efficient heat and moisture transfer. This innovative design not only tempers incoming air but also balances indoor moisture levels across all seasons, expelling excess moisture in humid conditions and retaining it in colder months to enhance comfort.

Designed for diverse climate zones, BalancedHome's advanced core ensures a more comfortable indoor environment year-round.

### Hygroscopic Membrane Core Key Benefits

- Durable and Long-lasting
- Energy Efficient
- Mold Resistant
- Low Maintenance



MERV 8  
FV-FL0815VE1

MERV 13  
FV-FL1316VE1

Return Air Filter

## Filters and Maintenance

BalancedHome ERV has two filters that clean the exhaust and supply air before passing through the ERV core, extending the life of the core. An access panel allows for quick, easy maintenance along with filter checks.

A convenient indicator light and unobtrusive alarm signal from the access panel, and notification on the LED wall control, will help inform the homeowner when it's time to check and clean the filters. Both filters should be vacuumed with a soft brush attachment every 2-3 months or as needed, and the supply air filter should be inspected every 90 days and replaced every 6 months to maintain the ERV's peak performance.



## Installation

**Mounting:** All BalancedHome ERV models can be wall mounted with brackets (included in box) or suspended by chains (sold separately).

**Duct:** Insulated 6" duct is recommended.

## Quality Control

Panasonic is committed to delivering exceptional energy recovery ventilators that meet the highest standards of quality and craftsmanship. Our rigorous quality control processes are designed to ensure every item is produced with precision and care, providing years of service.

Panasonic adheres to stringent quality control procedures throughout every stage of production, from the selection of premium materials to the final inspection. Our team follows internationally recognized ISO standards to guarantee consistent quality, reliability, and safety in all our products.

## BalancedHome Elite Plus+ Models

| FV-16VEC1T         |                     |     |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
|--------------------|---------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|---------------------------|------------------------------------|-------|
| Energy Performance |                     |     |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
| Mode               | Outdoor Temperature |     | Net Air Flow |     | Power consumed | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Latent Recovery / Moisture Transfer | Apparent Sensible Effectiveness <sup>1</sup> | Total Recovery Efficiency | Adjusted Total Recovery Efficiency | CFM/W |
|                    | °C                  | °F  | L/S          | CFM | [Watt]         |                              |                                       |                                     |                                              |                           |                                    |       |
| Heating            | 0                   | 32  | 17           | 36  | 25             | 82                           | 84                                    | 0.81                                | 89                                           | -                         | -                                  | 1.4   |
|                    | 0                   | 32  | 31           | 66  | 44             | 79                           | 81                                    | 0.74                                | 84                                           | -                         | -                                  | 1.5   |
|                    | 0                   | 32  | 61           | 129 | 109            | 73                           | 75                                    | 0.64                                | 78                                           | -                         | -                                  | 1.1   |
| -25°C              | -25                 | -13 | 31           | 66  | 163            | 60                           | 65                                    | 0.60                                | 87                                           | -                         | -                                  | 0.4   |
| Cooling            | 35                  | 95  | 17           | 36  | 26             | -                            | -                                     | 0.80                                | 81                                           | 73                        | 75                                 | 1.3   |
|                    | 35                  | 95  | 31           | 66  | 48             | -                            | -                                     | 0.70                                | 76                                           | 68                        | 70                                 | 1.3   |
|                    | 35                  | 95  | 57           | 121 | 110            | -                            | -                                     | 0.60                                | 66                                           | 61                        | 63                                 | 1.1   |

| FV-16VEC1S         |                     |     |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
|--------------------|---------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|---------------------------|------------------------------------|-------|
| Energy Performance |                     |     |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
| Mode               | Outdoor Temperature |     | Net Air Flow |     | Power consumed | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Latent Recovery / Moisture Transfer | Apparent Sensible Effectiveness <sup>1</sup> | Total Recovery Efficiency | Adjusted Total Recovery Efficiency | CFM/W |
|                    | °C                  | °F  | L/S          | CFM | [Watt]         |                              |                                       |                                     |                                              |                           |                                    |       |
| Heating            | 0                   | 32  | 17           | 36  | 25             | 82                           | 84                                    | 0.81                                | 89                                           | -                         | -                                  | 1.4   |
|                    | 0                   | 32  | 31           | 66  | 44             | 79                           | 81                                    | 0.74                                | 84                                           | -                         | -                                  | 1.5   |
|                    | 0                   | 32  | 61           | 129 | 109            | 73                           | 75                                    | 0.64                                | 78                                           | -                         | -                                  | 1.1   |
| -25°C              | -25                 | -13 | 31           | 66  | 163            | 60                           | 65                                    | 0.60                                | 87                                           | -                         | -                                  | 0.4   |
| Cooling            | 35                  | 95  | 17           | 36  | 26             | -                            | -                                     | 0.80                                | 81                                           | 73                        | 75                                 | 1.3   |
|                    | 35                  | 95  | 31           | 66  | 48             | -                            | -                                     | 0.70                                | 76                                           | 68                        | 70                                 | 1.3   |
|                    | 35                  | 95  | 57           | 121 | 110            | -                            | -                                     | 0.60                                | 66                                           | 61                        | 63                                 | 1.1   |

| FV-13VEC1T         |                     |     |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
|--------------------|---------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|---------------------------|------------------------------------|-------|
| Energy Performance |                     |     |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
| Mode               | Outdoor Temperature |     | Net Air Flow |     | Power consumed | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Latent Recovery / Moisture Transfer | Apparent Sensible Effectiveness <sup>1</sup> | Total Recovery Efficiency | Adjusted Total Recovery Efficiency | CFM/W |
|                    | °C                  | °F  | L/S          | CFM | [Watt]         |                              |                                       |                                     |                                              |                           |                                    |       |
| Heating            | 0                   | 32  | 17           | 36  | 26             | 81                           | 83                                    | 0.80                                | 88                                           | -                         | -                                  | 1.3   |
|                    | 0                   | 32  | 31           | 66  | 48             | 78                           | 80                                    | 0.73                                | 83                                           | -                         | -                                  | 1.3   |
|                    | 0                   | 32  | 59           | 125 | 109            | 73                           | 75                                    | 0.63                                | 77                                           | -                         | -                                  | 1.1   |
| -25°C              | -25                 | -13 | 31           | 66  | 163            | 60                           | 65                                    | 0.60                                | 87                                           | -                         | -                                  | 0.4   |
| Cooling            | 35                  | 95  | 17           | 36  | 27             | -                            | -                                     | 0.79                                | 80                                           | 71                        | 73                                 | 1.3   |
|                    | 35                  | 95  | 31           | 66  | 50             | -                            | -                                     | 0.69                                | 75                                           | 67                        | 69                                 | 1.3   |
|                    | 35                  | 95  | 57           | 121 | 112            | -                            | -                                     | 0.59                                | 65                                           | 58                        | 60                                 | 1.0   |

| FV-13VEC1S         |                     |     |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
|--------------------|---------------------|-----|--------------|-----|----------------|------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|---------------------------|------------------------------------|-------|
| Energy Performance |                     |     |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
| Mode               | Outdoor Temperature |     | Net Air Flow |     | Power consumed | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Latent Recovery / Moisture Transfer | Apparent Sensible Effectiveness <sup>1</sup> | Total Recovery Efficiency | Adjusted Total Recovery Efficiency | CFM/W |
|                    | °C                  | °F  | L/S          | CFM | [Watt]         |                              |                                       |                                     |                                              |                           |                                    |       |
| Heating            | 0                   | 32  | 17           | 36  | 26             | 81                           | 83                                    | 0.80                                | 88                                           | -                         | -                                  | 1.3   |
|                    | 0                   | 32  | 31           | 66  | 48             | 78                           | 80                                    | 0.73                                | 83                                           | -                         | -                                  | 1.3   |
|                    | 0                   | 32  | 59           | 125 | 109            | 73                           | 75                                    | 0.63                                | 77                                           | -                         | -                                  | 1.1   |
| -25°C              | -25                 | -13 | 31           | 66  | 163            | 60                           | 65                                    | 0.60                                | 87                                           | -                         | -                                  | 0.4   |
| Cooling            | 35                  | 95  | 17           | 36  | 27             | -                            | -                                     | 0.79                                | 80                                           | 71                        | 73                                 | 1.3   |
|                    | 35                  | 95  | 31           | 66  | 50             | -                            | -                                     | 0.69                                | 75                                           | 67                        | 69                                 | 1.3   |
|                    | 35                  | 95  | 57           | 121 | 112            | -                            | -                                     | 0.59                                | 65                                           | 58                        | 60                                 | 1.0   |

## BalancedHome Elite Models

| FV-15VE1T          |                     |    |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
|--------------------|---------------------|----|--------------|-----|----------------|------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|---------------------------|------------------------------------|-------|
| Energy Performance |                     |    |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
| Mode               | Outdoor Temperature |    | Net Air Flow |     | Power consumed | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Latent Recovery / Moisture Transfer | Apparent Sensible Effectiveness <sup>1</sup> | Total Recovery Efficiency | Adjusted Total Recovery Efficiency | CFM/W |
|                    | °C                  | °F | L/S          | CFM | [Watt]         |                              |                                       |                                     |                                              |                           |                                    |       |
| Heating            | 0                   | 32 | 17           | 36  | 20             | 77                           | 79                                    | 0.67                                | 86                                           | -                         | -                                  | 1.8   |
|                    | 0                   | 32 | 31           | 66  | 33             | 73                           | 75                                    | 0.58                                | 79                                           | -                         | -                                  | 2.0   |
|                    | 0                   | 32 | 71           | 150 | 98             | 64                           | 66                                    | 0.50                                | 69                                           | -                         | -                                  | 1.5   |
| Cooling            | 35                  | 95 | 17           | 36  | 23             | -                            | -                                     | 0.78                                | 77                                           | 70                        | 72                                 | 1.5   |
|                    | 35                  | 95 | 31           | 66  | 37             | -                            | -                                     | 0.66                                | 70                                           | 64                        | 66                                 | 1.7   |
|                    | 35                  | 95 | 57           | 121 | 102            | -                            | -                                     | 0.56                                | 58                                           | 53                        | 55                                 | 1.1   |

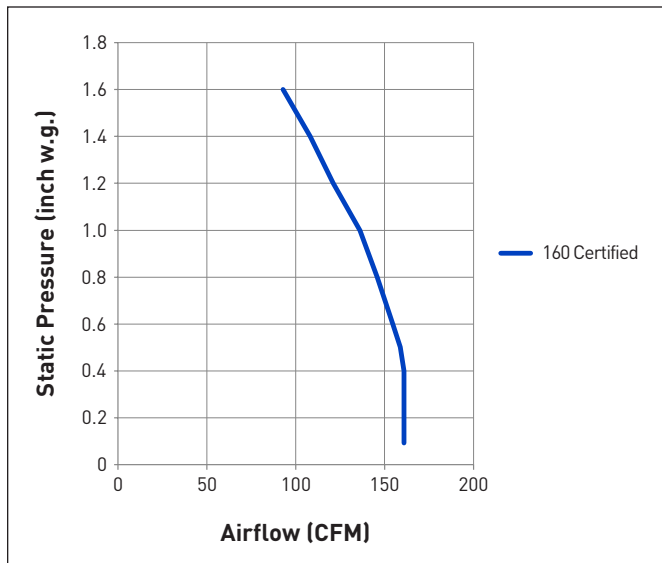
| FV-15VE1S          |                     |    |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
|--------------------|---------------------|----|--------------|-----|----------------|------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|---------------------------|------------------------------------|-------|
| Energy Performance |                     |    |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
| Mode               | Outdoor Temperature |    | Net Air Flow |     | Power consumed | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Latent Recovery / Moisture Transfer | Apparent Sensible Effectiveness <sup>1</sup> | Total Recovery Efficiency | Adjusted Total Recovery Efficiency | CFM/W |
|                    | °C                  | °F | L/S          | CFM | [Watt]         |                              |                                       |                                     |                                              |                           |                                    |       |
| Heating            | 0                   | 32 | 17           | 36  | 20             | 77                           | 79                                    | 0.67                                | 86                                           | -                         | -                                  | 1.8   |
|                    | 0                   | 32 | 31           | 66  | 33             | 73                           | 75                                    | 0.58                                | 79                                           | -                         | -                                  | 2.0   |
|                    | 0                   | 32 | 71           | 150 | 98             | 64                           | 66                                    | 0.50                                | 69                                           | -                         | -                                  | 1.5   |
| Cooling            | 35                  | 95 | 17           | 36  | 23             | -                            | -                                     | 0.78                                | 77                                           | 70                        | 72                                 | 1.5   |
|                    | 35                  | 95 | 31           | 66  | 37             | -                            | -                                     | 0.66                                | 70                                           | 64                        | 66                                 | 1.7   |
|                    | 35                  | 95 | 57           | 121 | 102            | -                            | -                                     | 0.56                                | 58                                           | 53                        | 55                                 | 1.1   |

| FV-12VE1T          |                     |    |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
|--------------------|---------------------|----|--------------|-----|----------------|------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|---------------------------|------------------------------------|-------|
| Energy Performance |                     |    |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
| Mode               | Outdoor Temperature |    | Net Air Flow |     | Power consumed | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Latent Recovery / Moisture Transfer | Apparent Sensible Effectiveness <sup>1</sup> | Total Recovery Efficiency | Adjusted Total Recovery Efficiency | CFM/W |
|                    | °C                  | °F | L/S          | CFM | [Watt]         |                              |                                       |                                     |                                              |                           |                                    |       |
| Heating            | 0                   | 32 | 17           | 36  | 22             | 76                           | 78                                    | 0.66                                | 85                                           | -                         | -                                  | 1.6   |
|                    | 0                   | 32 | 31           | 66  | 35             | 72                           | 74                                    | 0.57                                | 78                                           | -                         | -                                  | 1.8   |
|                    | 0                   | 32 | 57           | 121 | 73             | 65                           | 67                                    | 0.49                                | 70                                           | -                         | -                                  | 1.6   |
| Cooling            | 35                  | 95 | 17           | 36  | 24             | -                            | -                                     | 0.77                                | 76                                           | 68                        | 70                                 | 1.5   |
|                    | 35                  | 95 | 31           | 66  | 39             | -                            | -                                     | 0.65                                | 69                                           | 61                        | 63                                 | 1.6   |
|                    | 35                  | 95 | 52           | 110 | 77             | -                            | -                                     | 0.56                                | 59                                           | 53                        | 55                                 | 1.4   |

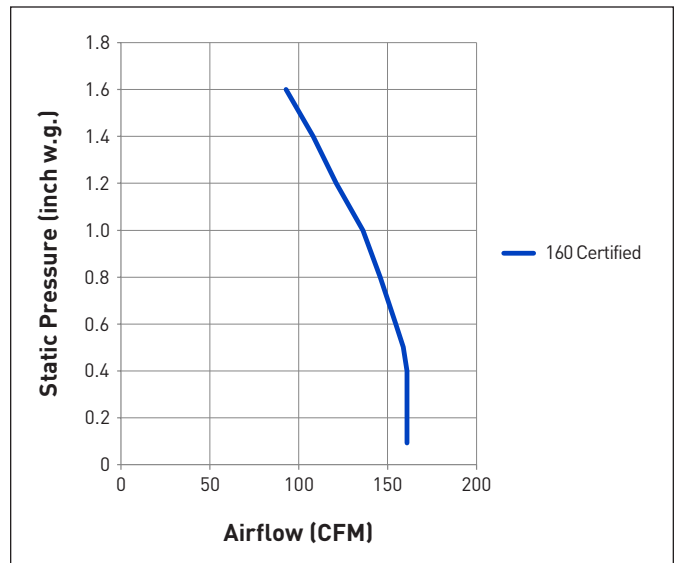
| FV-12VE1S          |                     |    |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
|--------------------|---------------------|----|--------------|-----|----------------|------------------------------|---------------------------------------|-------------------------------------|----------------------------------------------|---------------------------|------------------------------------|-------|
| Energy Performance |                     |    |              |     |                |                              |                                       |                                     |                                              |                           |                                    |       |
| Mode               | Outdoor Temperature |    | Net Air Flow |     | Power consumed | Sensible Recovery Efficiency | Adjusted Sensible Recovery Efficiency | Latent Recovery / Moisture Transfer | Apparent Sensible Effectiveness <sup>1</sup> | Total Recovery Efficiency | Adjusted Total Recovery Efficiency | CFM/W |
|                    | °C                  | °F | L/S          | CFM | [Watt]         |                              |                                       |                                     |                                              |                           |                                    |       |
| Heating            | 0                   | 32 | 17           | 36  | 22             | 76                           | 78                                    | 0.66                                | 85                                           | -                         | -                                  | 1.6   |
|                    | 0                   | 32 | 31           | 66  | 35             | 72                           | 74                                    | 0.57                                | 78                                           | -                         | -                                  | 1.8   |
|                    | 0                   | 32 | 57           | 121 | 73             | 65                           | 67                                    | 0.49                                | 70                                           | -                         | -                                  | 1.6   |
| Cooling            | 35                  | 95 | 17           | 36  | 24             | -                            | -                                     | 0.77                                | 76                                           | 68                        | 70                                 | 1.5   |
|                    | 35                  | 95 | 31           | 66  | 39             | -                            | -                                     | 0.65                                | 69                                           | 61                        | 63                                 | 1.6   |
|                    | 35                  | 95 | 52           | 110 | 77             | -                            | -                                     | 0.56                                | 59                                           | 53                        | 55                                 | 1.4   |

## BalancedHome Elite Plus+ Models

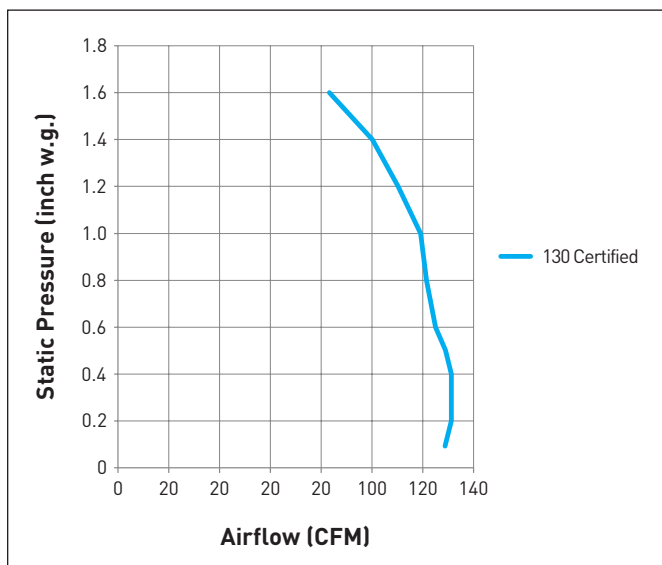
**FV-16VEC1T Net Supply**



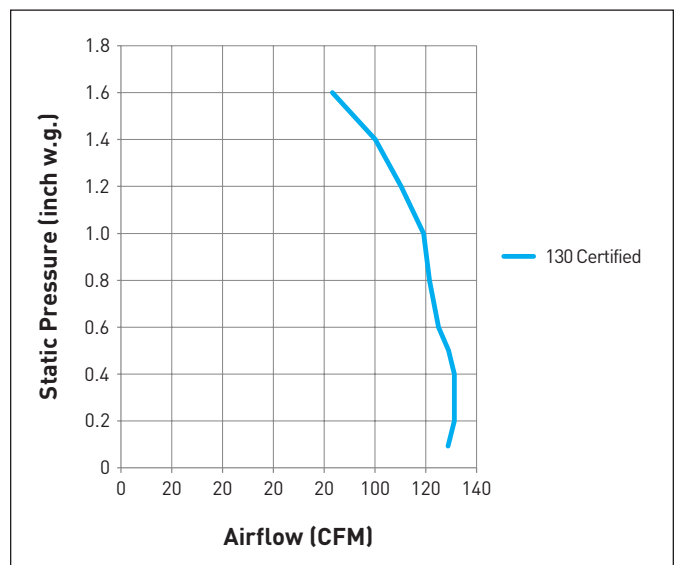
**FV-16VEC1S Net Supply**



**FV-13VEC1T Net Supply**

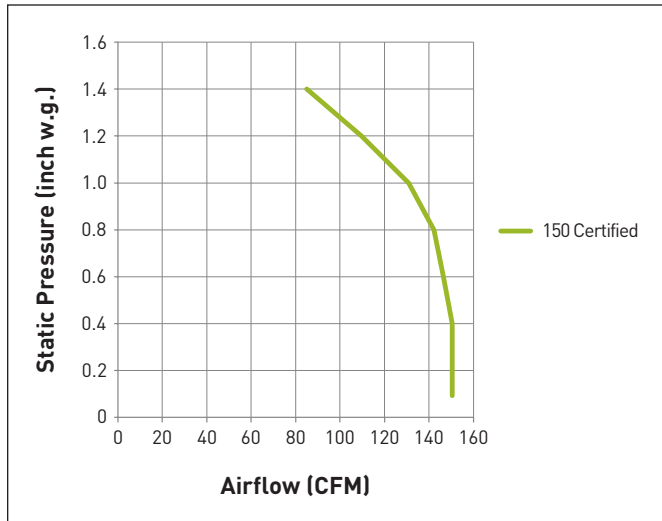


**FV-13VEC1S Net Supply**

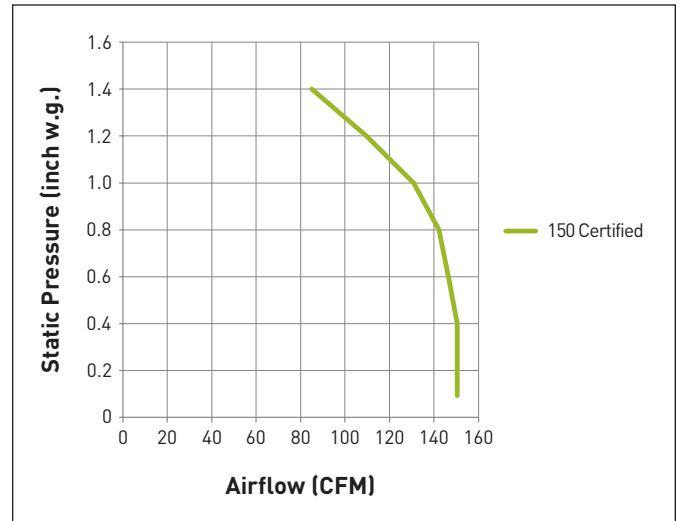


## BalancedHome Elite Models

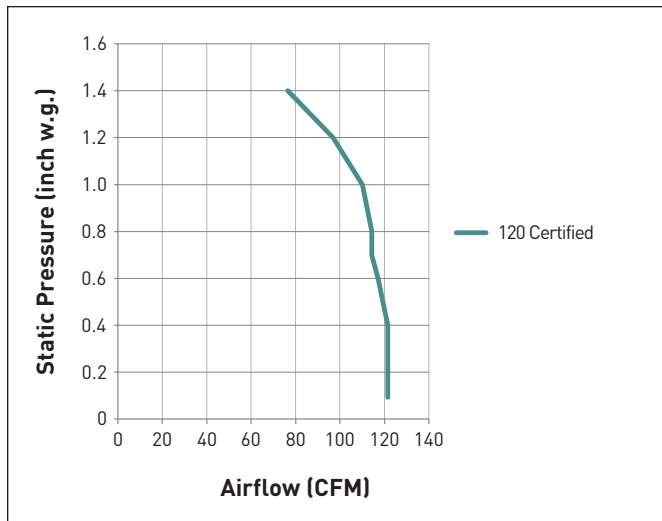
FV-15VE1T Net Supply



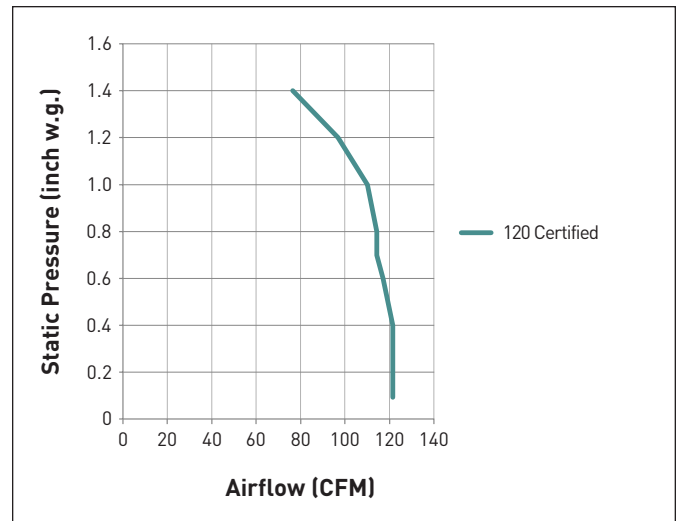
FV-15VE1S Net Supply



FV-12VE1T Net Supply



FV-12VE1S Net Supply



# Port Configurations

## Top Port

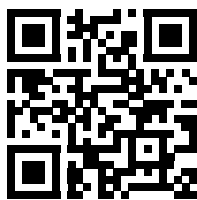


*BalancedHome Elite Plus+  
FV-16VEC1T – Top Port*

## Side Port



*BalancedHome Elite Plus+  
FV-16VEC1S – Side Port*



Scan to learn more



**Panasonic  
IAQ Division**  
Two Riverfront Plaza  
Newark, NJ 07102  
[iaq.na.panasonic.com](http://iaq.na.panasonic.com)

**For Order Information**  
PHONE: 866-292-7299  
FAX: 888-553-0723  
[ventfans@us.panasonic.com](mailto:ventfans@us.panasonic.com)